Remarks

1. Summary of the Office Action

In the Office Action, the Examiner rejected claims 1-7, 10-16, and 20-24 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,834,341 (Bahl), the Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Bahl in view of Applicant Admitted Prior Art, the Examiner rejected claims 8, 9, and 17 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bahl in view of U.S. Patent No. 6,339,761 (Cottingham), and the Examiner rejected claims 18 and 19 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bahl in view of U.S. Patent No. 6,603,758 (Schmuelling).

2. Status of the Claims

As shown above, Applicant has amended claims 1, 3, 12, 13, 17, and 21-24. Still pending in this application are claims 1-24, of which claims 1, 12, 13, 21, and 23 are independent and the remainder are dependent.

3. Response to § 102 Rejections

a. Overview

The Examiner rejected claims 1-7, 10-16, and 20-24 under 35 U.S.C. § 102(e) as being allegedly anticipated by Bahl. Applicant submits that the claims, as amended, clearly distinguish over Bahl.

b. Claims

Each of independent claims 1, 12, 13, 21, and 23 includes the functions of receiving an indication that a subscriber has been authenticated by a particular service provider and responsively assigning the subscriber to operate in a particular logical layer of an access network and according to a service qualification provided by the indication, wherein the

- 12 -

service qualification indicates at least one of (i) one or more types of services authorized for the subscriber and (ii) one or more extents of service authorized for the subscriber.

Claims 1 and 12 distinguish logical layers (and thus handling of communications) according to the service provider that authenticated the user, namely, assigning a first subscriber to a first logical layer of the access network (e.g., first IP subnet) in response to receiving a first indication that a first service provider authenticated the first subscriber, and assigning a second subscriber to a second logical layer of the access network (e.g., second IP subnet) in response to receiving a second indication that a second service provider authenticated the second subscriber. The first and second subscribers are respectively assigned to first and second logical layers of the access network according to service qualifications received in the first and second indications, respectively; where each respective service qualification contains information for each respective subscriber about at least one of the types and extents of service authorized for the subscriber.

Claim 13 recites receiving from a subscriber-designated service provider an authentication response that indicates successful authentication by the service provider, and responsively assigning the subscriber to operate in a designated access network layer set aside for subscribers that have been authenticated by that particular service provider. The subscriber is assigned to the designated layer of the access network according to a service qualification received in the authentication response, where the service qualification contains information about at least one of the types and extents of service authorized for the subscriber.

Claims 21 and 23 similarly recite the functions of receiving from a selected service provider an authentication response indicating that a client station has been authenticated by the service provider, and responsively restricting the client station to communications in

- 13 -

a logical access network layer associated with that selected service provider. The subscriber is assigned to the logical access network layer according to a service qualification received in the authentication response, where the service qualification contains information about at least one of the types and extents of service authorized for the client station.

c.   Deficiency of Bahl

Bahl teaches systems and methods for providing network access including authenticating various users and negotiating for services with service providers on behalf of the users, as well as a policy manager that contains policies that govern user access to the internet. (See Bahl, Abstract, lines 1-12). Each computer user may be connected wirelessly to the Internet through an access module, which may comprise one or more access points, (Bahl, col. 7, lines 54-67, col. 9, lines 30-60, col. 12, lines 24-35).

A user may establish a wireless communication link from the access point to a Protocol for Authentication and Negotiation of Services (PANS) server. (Bahl, col. 2, line 45 – col. 3, line 5). The role of the PANS server is to ensure users are authenticated from either a global or a local authentication database; once authenticated (via any suitable authentication method), the PANS server gives the user a unique token or key which must be presented before the user can send or receive packets to the Internet. (Bahl, col. 3, lines 6-25, col. 7, lines 15-19, col. 12, line 50, col. 13, lines 40-50). Once authenticated, communication between the user and the Internet goes though an authentication/negotiation component of the PANS server. (Bahl, col. 7, lines 19-24). Further, the PANS server may present choices for Internet accessibility and levels of service provided to the user and may negotiate Internet access for the user with Internet Service Providers (ISPs). (Bahl, col. 3, lines 26-35, col. 7, lines 25-52, col. 12, lines 36-49). A user may be granted limited access

- 14 -

to the Internet for a limited time for the limited purpose of user authentication. (Bahl, col. 6, line 60 – col. 7, line 10).

Bahl also discloses an alternate architecture with a PANS Authorizer component that works in coordination with a PANS verifier module residing at each access point. (Bahl, col. 11, lines 55-63). Once a user is authenticated, the PANS verifier module inspects each packet to provide local detection of rogue users that attempt to transmit unauthorized packets. (Bahl, col. 11, line 67 – col. 12, line 19).

Bahl discloses that once a user has been authenticated to a global authentication database, then the PANS server and the global authentication database, then the global authentication database can transmit additional information about the user needed by the PANS server, such as credit card or address information. (Bahl, col. 13, lines 15-34). Once the PANS server has all the information it needs about a user, the PANS server can generate the unique token described above. (Bahl, col. 13, lines 35-50).

In all, Bahl seems to assume that the authentication of the user and the assignment of a user to a level of service are independent steps. The assignment of a user to a type of service appears to be done by the PANS server when it generates a token after the authentication process has completed (Bahl, col. 13, lines 34-36).

There is no indication in Bahl that the assignment of a user to a type of service, extent of service, or both is done as part of the authentication process. Indeed, Bahl discloses very little, if anything, related to the actual communication between any global authentication database and a PANS server in assigning a user to a type and/or extent of service.

At best, Bahl teaches that "[o]nce the PANS server receives the notification [of authentication], it can then, if necessary receive any additional information about the user it

- 15 -

needs." (Bahl, col. 13, lines 24-26). However, Bahl does not teach communication of any information by a global authentication database capable of assigning a user to a type and/or extent of authorized services. Further, Bahl does not teach its global authentication database sending an authentication response that includes both (i) information authenticating a subscriber and (ii) a service qualification for the subscriber as recited in Applicant's claims. At a minimum, Bahl does not teach to responsively assigning the subscriber to operate in a particular logical layer of an access network and according to a service qualification received in the authentication response/indication, wherein the service qualification comprises at least one of (i) one or more types of services authorized for the subscriber and (ii) one or more extents of service authorized for the subscriber.

Because Bahl fails to disclose all of the features recited in any of Applicant's independent claims (as amended), Bahl fails to anticipate any of the independent claims. Consequently, Applicant submits that the independent claims are allowable. Furthermore, Applicant submits that each of the dependent claims is allowable for at least the reason that it depends from an allowable claim. Applicant therefore submits that the rejections of all of the pending claims should be withdrawn, and the case should be passed to issuance.

4.   **Response to § 103 Rejections**

As noted above, the Examiner rejected the remainder of Applicant's claims (5, 8, 9, 17-19) on grounds of obviousness over Bahl in combination with allegedly admitted prior art (AAPA), Cottingham, or Schmuelling. Under M.P.E.P. § 2143, a *prima facie* case of obviousness over a combination of references can be established only if cited references disclose or suggest all of the claim limitations. Applicant respectfully traverses the obviousness rejections of claims 5, 8, 9, and 17-19 because the Examiner has not

established that the art of record discloses or suggests all of the limitations of any of these claims.

Each of claims 5, 8, 9, and 17-19 depends ultimately from one of the claims discussed above in relation to the anticipation rejections. Consequently, for at least the same reason that the above-discussed claims patentably distinguish over the Bahl reference, dependent claims 5, 8, 9, and 17-19 patentably distinguish over Bahl. Still further, the Examiner has not asserted that the AAPA, Cottingham, or Schmuelling make up for the deficiency of Bahl. Therefore, the Examiner has not made out a *prima facie* case of obviousness of these claims.

Applicant does not concede the representations made more specifically by the Examiner with respect to the dependent claims. However, Applicants submit that those other points are moot in view of the fact that a *prima facie* case of obviousness does not exist.
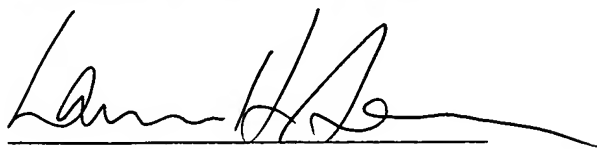
5. Conclusion

In view of the foregoing, Applicant submits that all of the pending claims are allowable. Therefore, Applicant respectfully requests favorable action.

Should the Examiner wish to discuss this case with the undersigned, the Examiner is invited to call the undersigned at (312) 913-2141.

Respectfully submitted,

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Dated: August 21, 2006   By: _____

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- 17 -